Breathing & Sleep Symposium II

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Building on the successful 2009 program about the breathing and sleep problems of individuals with neuromuscular (NM) conditions, new topics at the November 21, 2010, symposium covered pulmonary function tests and pre- and post-operative surgical considerations. The audience of primarily polio survivors also included respiratory therapists and trainees from the local San Diego area who received continuing education credits for the five-hour program. The setting was again the Salk Institute for Biological Studies in La Jolla, California, and sponsors were the Salk Institute and ResMed Corp.

Presenters included Josh Benditt, MD, FCCP, and Louie Boitano, MS, RRT, RPFT, the Northwest Assisted Breathing Center at University of Washington in Seattle; Helen Kent, BS, RRT, Progressive Medical, Carlsbad, California; Selma Calmes, MD (retired), UCLA School of Medicine; and Angela King, BS, RPFT, RRT-NPS, ResMed Corp.

HIGHLIGHTS

Sleep-disordered breathing, tests and equipment

- During sleep, everyone breathes less deeply but when there is also respiratory muscle weakness, individuals can get started on the slow road to respiratory insufficiency.
- Sleep studies may not be necessary when pulmonary function tests such as MIP (maximum inspiratory pressure), MEP (maximum expiratory pressure), peak cough flow, and FVC (forced vital capacity) can identify breathing problems and underventilation due to weakening respiratory muscles. It is important to measure FVC in the supine (lying face up) position.
- Most sleep labs are not set up for people with neuromuscular conditions who may have breathing problems due to underventilation. CPAP units are appropriate for obstructive sleep apnea, but when underventilation is present, the appropriate equipment is a bilevel device with a backup rate that can initiate breaths for the individual.
- Oxygen may be necessary but should *only* be used in conjunction with assisted ventilation.
- Pulse oximetry measures O_2 saturation, but not CO_2 buildup.
- Follow-up monitoring after assisted ventilation has been initiated is important, but often not done. Annual tests of MIP, MEP, and FVC are recommended to monitor progression of respiratory muscle weakness.

Pre-op and post-op considerations

- When possible, choose a large teaching hospital, and check out the surgeon carefully.

Gladys Swensrud (third from left), Co-facilitator of the San Diego Polio Survivors, with (from left) Louie Boitano, Selma Calmes and Josh Benditt, presenters at the Breathing and Sleep Symposium II.

Photo credit: Nancy Yates

Dear Editor:

I just finished reading the August 2010 issue of *Ventilator-Assisted Living*. It is very good, as usual. I want to add additional comment to the "Ask the Experts" article and the Passy-Muir article.

Speaking is critical to a respirator user. Unfortunately, some physicians just don't get it. In both of these articles this was indicated, but it goes beyond weaning from a trach or using a speaking valve.

My good friend, Ken, entered a very well respected health facility in 2003 for a routine gallbladder removal. Something went wrong and he never regained peristaltic action. He became so distended that his breathing was compromised. He needed a tracheostomy to get adequately ventilated. A cuffed trach was used.

Ken was in the hospital, mostly in ICU, for almost four months. In this time, his cuff was never deflated. As far as I could determine, his cuff was not deflated for even brief periods. This is contrary to all cuffed trach protocols. When I questioned his respiratory therapist about deflating his cuff, I was told very firmly, "He's not ready to come off the vent yet!"

I pointed out that I'm on a vent. I have a trach. And I don't use a cuff. The therapist looked at me as if I were an alien being. I left notes for Ken's physicians in his medical charts and spoke often with his nursing team. They appeared to be in agreement with me. Unfortunately, his primary doctor never returned my calls. I was not a relative, so I had little standing to press the issue. A relative who had his medical power of attorney believed that, "The doctor must know what he's doing."

Ken died of sepsis three and a half months after entering the hospital, never having the opportunity to speak.

Richard Daggett, President, Polio Survivors Association, Downey, California, richarddaggett@ca.rr.com

- Complications are due more to the surgery than the anesthesia.
- Meeting with the anesthesiologist before surgery, while preferable, may not be possible. Many large hospitals have pre-op clinics that can take the information and pass it along in case the anesthesiologist should change.
- Post-op phase can be critical for people with NM disorders; these individuals need closer monitoring and should not be discharged too quickly.
- If the hospital permits, the individual can bring his/her own ventilator and interface to use, but this requires discussions with hospital staff as surgery is being planned.

Gladys Swensrud, Co-Facilitator of the San Diego Polio Survivors, was saluted for her hard work in organizing and promoting the symposium. Videos of the presentations are available on www.poliotoday.org. ▲

Calendar

MARCH 12-18. Ventilator-Assisted Children's Center (VACC) Camp, Miami Florida. Contact Bela Florentin, VACC, Miami Children's Hospital, 305-662-8222, bela.florentin@mch.com, www.vacccamp.com

MARCH 24-26. FOCUS on Respiratory Care and Sleep Medicine Annual Conference. The Town & Country Resort, San Diego, California. www.foocus.com